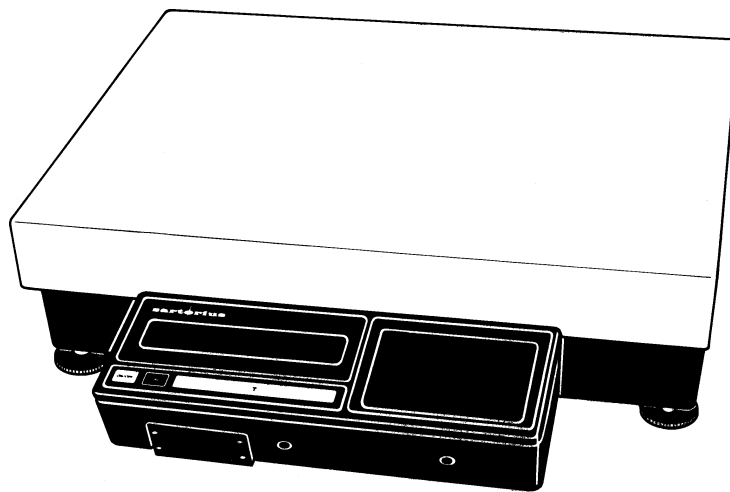
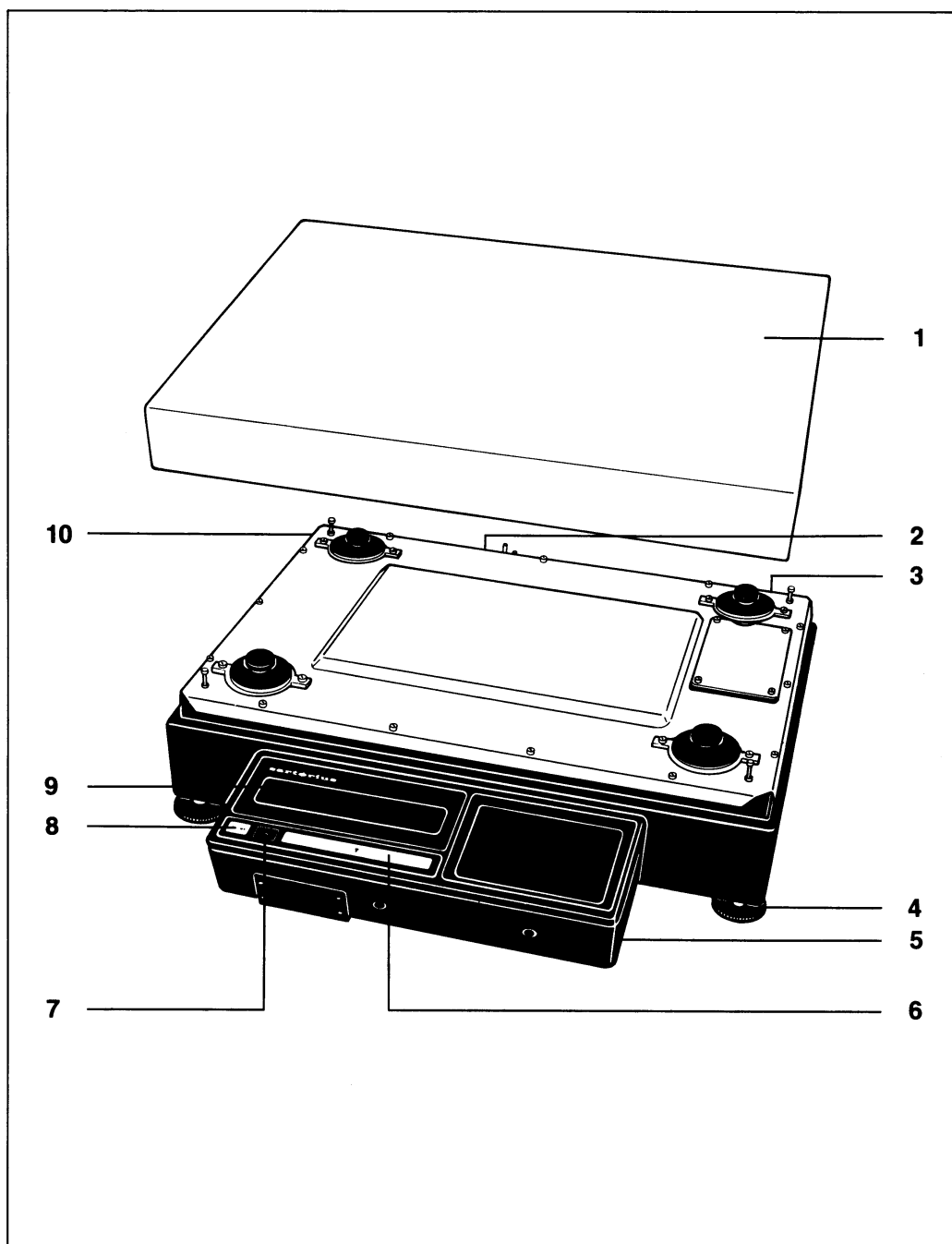


**Sartorius Industry**  
**IB 16000 S,**  
**IB 31000 P, IB 31.**



Electronic Precision Scales  
Installation and Operating Instructions





- |   |   |    |                      |
|---|---|----|----------------------|
| 1 | Platform cover for scale base                       | 6  | Tare control         |
| 2 | Level indicator (only for IB 16000S)                | 7  | CAL key              |
| 3 | Power receptacle                                    | 8  | ON/OFF key           |
| 4 | Leveling foot                                       | 9  | Weight display       |
| 5 | Menu access switch<br>(for scale operating program) | 10 | Manufacturer's label |

# Contents

	Page
About the Product (Warranty)	4
Storage and Shipping Conditions	5
<b>Equipment Supplied</b>	6
<b>Installations Instructions</b>	7
Ambient Conditions	7
<b>How to Mount the Display Unit</b>	8
Mounting the Display Unit on the Short Side of the Scale Base	9
Mounting the Remote Display Unit	11
Mounting the Display Unit on the YDH 01 B Support Arm (Option)	13
<b>Startup</b>	16
Connecting the scale to Line Power	16
Voltage Selection	16
Safety Precautions	17
Connecting Electronic Devices (Peripherals)	17
Leveling the Scale using the Level Indicator	17
<b>Operation</b>	18
Turning the Display On and Off	18
Self-Test	19
Weighing	19
Taring	19
Auto Zero	19
Automatic Shutoff	20
Calibration	20
Scale Operating Program	21
Reading a Program Menu Code (List Mode)	21
Changing a Program Menu Code (Change Mode)	21
List of the Programmable Menu Code Settings	23
Troubleshooting Guide	24
<b>Care and Maintenance</b>	25
Cleaning	25
Safety Inspection	25
<b>Accessories (Options)</b>	26
Interfacing Devices with the Scale (RS Interface)	26
<b>Specifications</b>	27

### **About the Product (Warranty)**

With this Sartorius Scale you have acquired a high-quality electronic Instrument that will ease your daily work load.

Please read these installation and operating instructions carefully before operating your new scale.

Pursuant to the German Directive for the Implementation of Regulations for Prevention of Accidents "Elektrische Anlagen und Betriebsmittel (VBG 4)" [Electrical Installations and Equipment] of April 1986, it is hereby certified that the equipment delivered, "Electronic Precision Scale, series IB," is manufactured and tested in compliance with the following DIN/VDE regulations

DIN IEC 348/VDE 0411 Safety requirements for electronic measuring apparatus

DIN IEC 380/VDE 0806 Safety of electrically energized Office machines

DIN IEC 601/VDE 0750 Safety of medical electrical equipment

and with Article 10 of the Low Voltage Directive 73/23/EEC issued on February 19, 1973 by the European Community  
When you use electrical equipment in installations and under ambient conditions requiring higher safety Standards, you must comply with the provisions specified in the applicable regulations for installation in your country.

Do not miss out on the benefits of our full warranty.  
Please complete the warranty card, indicating the date of installation,  
and return the card to your Sartorius dealer.

**Unpack the scale. Remove the plastic covering and adhesive strips.**

**Place the platform cover (1) on the scale base.**

### **Storage and Shipping Conditions**

Allowable storage temperature:   -40°C ...+70°C  
  -40°F ...+158°F

The packaging of the scale has been designed to ensure that the scale will not be damaged even if it is dropped from a height of 80 cm (about 32 inches).

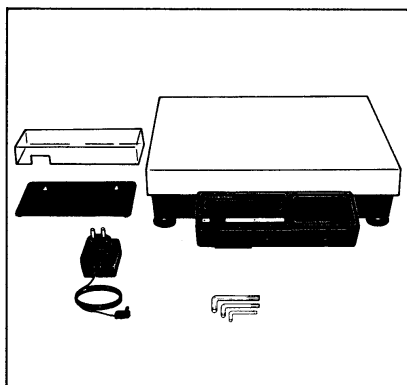
After unpacking the scale, please check it immediately for any visible damage as a result of rough handling during shipment. If this is the case, proceed as directed in the section entitled "Safety Inspection."

**Save all parts of the packaging. and the box because you may need to ship your scale. Before you pack your scale to ship it, unplug all connected cables to prevent damage.**

Do not expose the scale unnecessarily to extreme temperatures, moisture, shocks, blows or vibrations.

## Equipment Supplied

The equipment supplied includes the components shown on the left:



- Scale with platform and display unit
- AG adapter
- Dust cover
- 3 Allen wrenches
- Retainers for mounting the display
- 2 M 4 x 8 screws and washers (for mounting the "Remote Display Unit")

# Installation Instructions

## Ambient Conditions

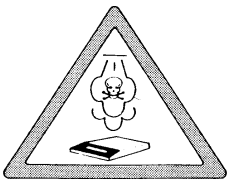
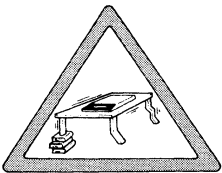
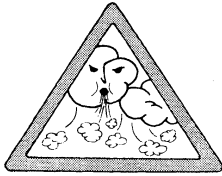
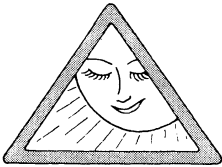
Unfavourable ambient conditions can influence weighing results.

Therefore, please select a suitable place to set up your scale. It should not be exposed to the following:

- heat radiation
- drafts
- vibrations
- aggressive chemical atmospheres (the scale must not be used in a hazardous location/area)

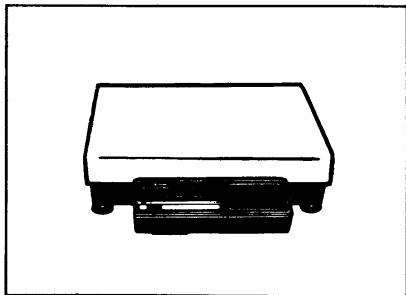
Do not expose the scale to extreme moisture over long periods. Moisture in the air can condense on the surfaces of a cold scale whenever it is brought to a substantially warmer area. If you need to transfer the scale to a warmer area, make sure to condition it for about 2 hours at room temperature, leaving it unplugged. Afterwards, if you keep the scale connected to AC power, the continuous positive difference in temperature between the inside of the scale and the outside will practically rule out the effects of moisture condensation. The components used in the scale are rated to at least Class KSF according to DIN 40040.

Your Sartorius scale provides accurate readouts even when it is exposed to unfavorable ambient conditions. You can adapt the scale to your requirements simply by changing the code settings in the scale operating menu. For more information, please read pages 21 through 23.

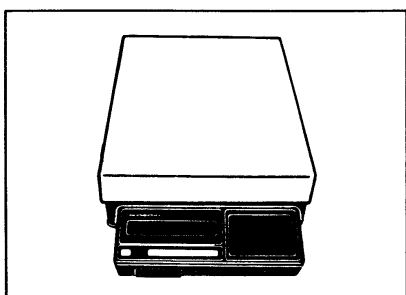


## How to Mount the Display Unit

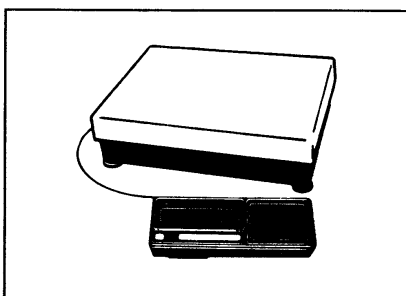
The display unit can be mounted as follows:



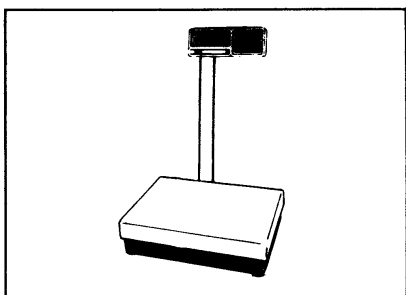
- base-mounted on the front of the scale (factory-mounted)



- base-mounted on the side of the scale (see next page for directions)



- mounted as a remote display unit (see page 11)

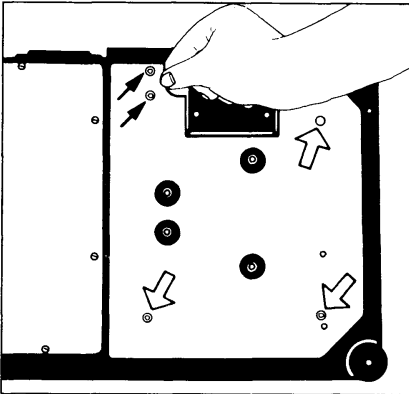


- mounted on a support arm as a raised display unit; YDH 01 IB is an Option (see page 13)

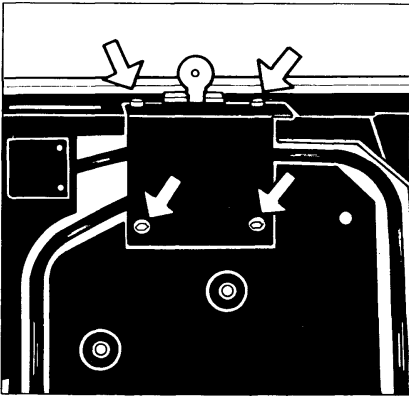


## Mounting the Display Unit on the Short Side of Scale Base

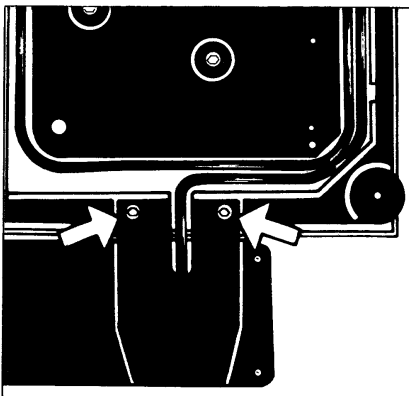
Leave the platform cover on the scale base. To mount the display, turn the scale upside down so that it rests on the platform cover.



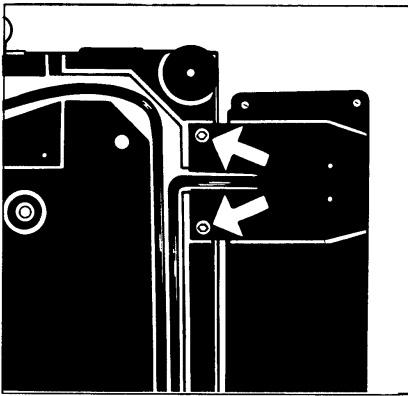
Remove the screws from the base plate using the Allen wrench supplied (see arrows) and then remove the base plate.



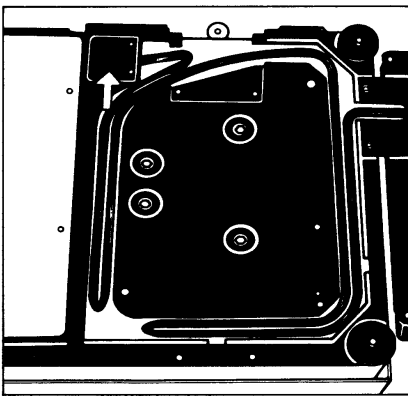
Unscrew the four screws of the angular cover plate, and remove the angular cover plate.



Remove the fastening screws from the display unit using the Allen wrench to untighten them. Remove the cable from the raceway (channel).

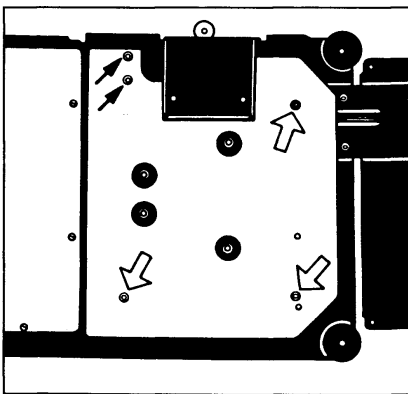


Attach the display unit to the short side of the scale base by tightening the two screws.



Insert the cable in the raceway as shown in the diagram on the left.

Make sure that the rubber seal (see arrow) is not damaged.



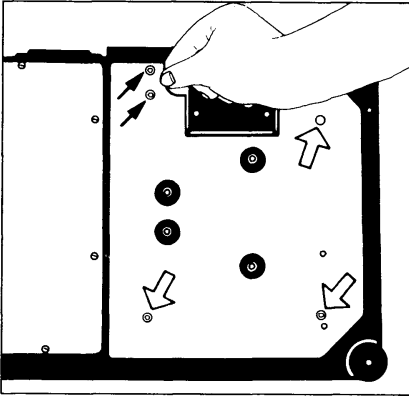
Reposition the base plate and fasten it in place by tightening the three M3x8 screws (see the large arrows) and the two M3x10 screws (see the small arrows).

Afterwards, fasten the angular cover plate in place by tightening the screws.

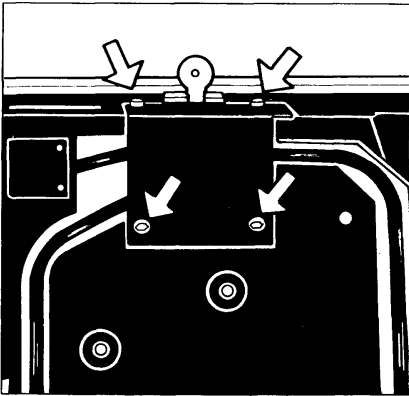
## Mounting the Remote Display Unit

Leave the platform cover on the scale.

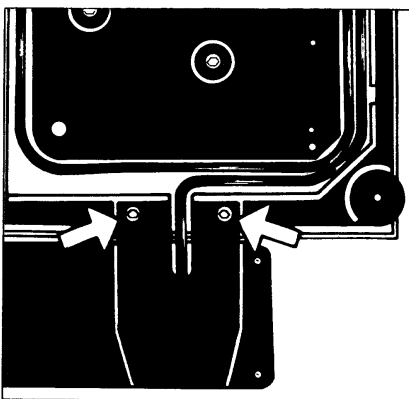
To mount the display, turn the scale upside down so that it rests on the platform cover.



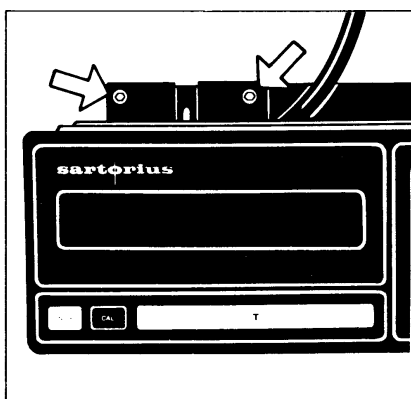
Remove the screws from the base plate (see arrows using the Allen wrench supplied) and then remove the base plate.



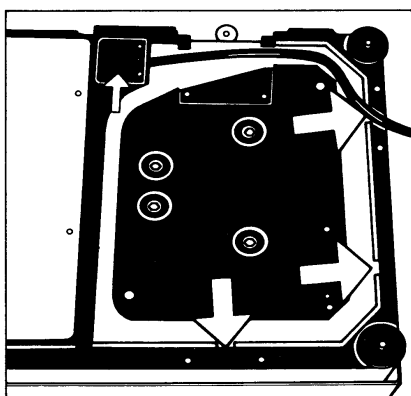
Unscrew the four screws of the angular cover plate, and remove the angular cover plate.



Remove the fastening screws from the display unit using the Allen wrench to untighten them. Remove the cable from the raceway (channel).

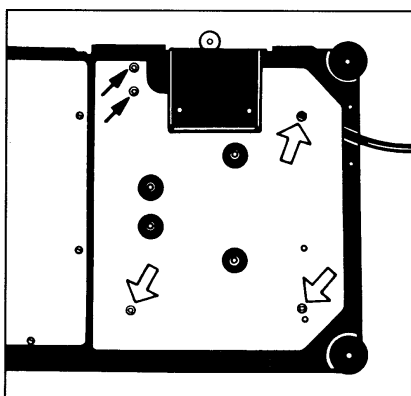


Attach the display unit to the mounting retainers supplied using the two M4x8 screws and washers (can also be mounted on a wall for use as a wall console).



Thread the cable through one of the three openings in the scale housing.

Make sure that the rubber seal (see small arrow) is not damaged.



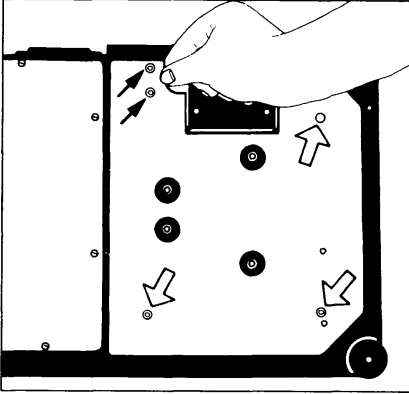
Reposition the base plate and fasten it in place by tightening the three M3x8 screws (see the large arrows) and the two M3x10 screws (see the small arrows).

Afterwards, fasten the angular cover plate in place by tightening the screws.

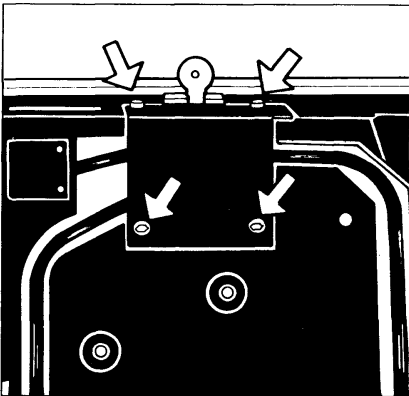
### Mounting the Display Unit on the YDH 01IB Support Arm (Option)

Leave the platform cover on the scale.

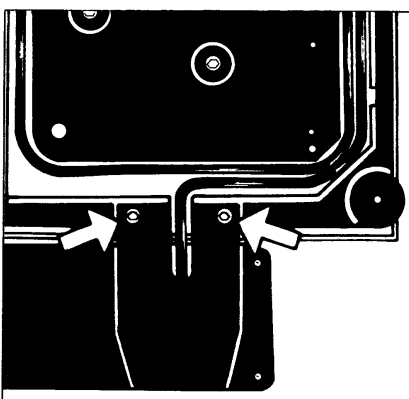
To mount the display, turn the scale upside down so that it rests on the platform cover.



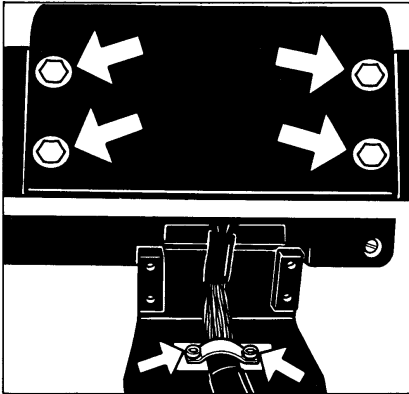
Remove the screws from the base plate (see arrows using the Allen wrench supplied) and then remove the base plate.



Unscrew the four screws of the angular cover plate, and remove the angular cover plate.



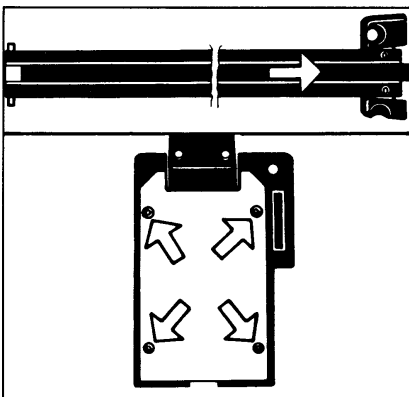
Remove the fastening screws from the display unit using the Allen wrench to untighten them.



Remove the four screws from the display unit (see arrows) using the Allen wrench to untighten them.

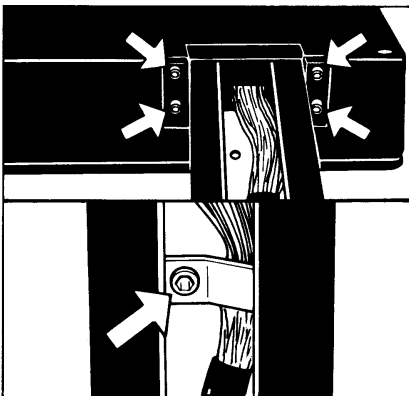
Unscrew the two screws from the cable clamp. Remove the clamp and then the display holder.

Remove the cable from the raceway in the bottom of the scale.



Slide out the narrow cover plate of the support arm in the direction of the arrow.

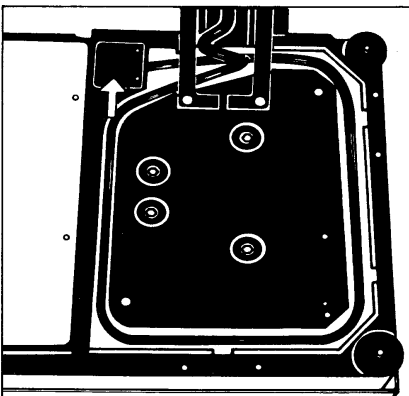
Use the Allen wrench to remove the four screws from the rectangular support arm cover plate and remove the cover plate from the support arm base.



Mount the display unit on the support arm using the two retainers and the four screws supplied.

Route the cable through the cable conduit inside the support arm.

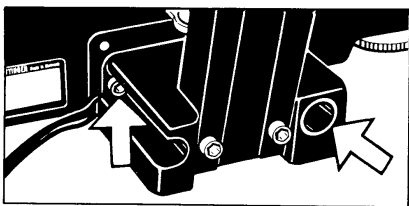
Mount the angular retainer using the screw and the spring washer so that the bundle of shielded wires contacts the inside of the support arm.



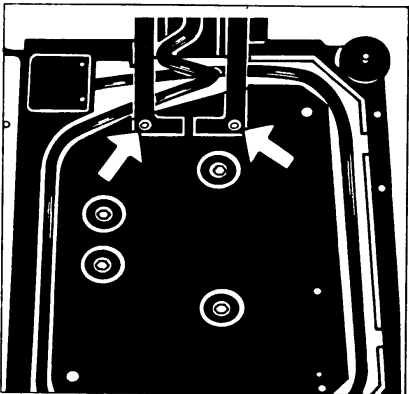
Insert the cable down through the support arm into opening of the mounting frame. Afterwards, slide the narrow cover plate into the support arm.

Insert the cable in the raceway as shown in the diagram.

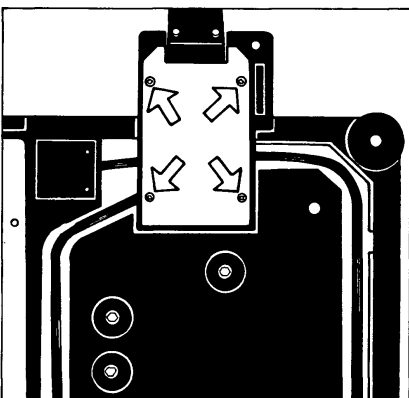
Make sure that the rubber seal (see arrow) is not damaged.



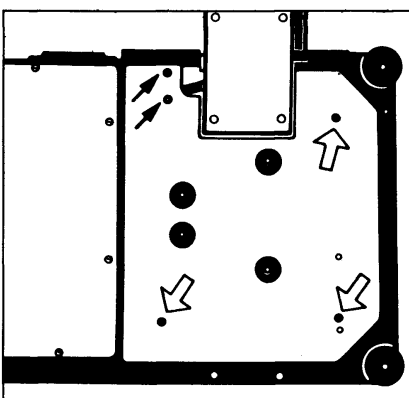
Fasten the support arm to the rear panel of the scale base using the two M5x16 screws supplied and the star lock washers.



Attach the mounting frame of the support arm to the bottom of the scale using the two M4x8 screws supplied.



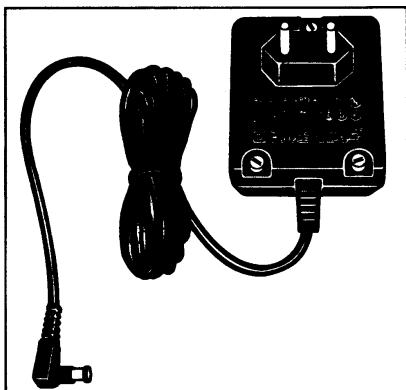
Refasten the rectangular cover plate to the support arm using the four screws.



Reposition the base plate and fasten it in place by tightening the three M3x8 screws (see the large arrows ) and the two M3x10 screws (see the small arrows).

## Startup

### Connecting the Scale to Line Power

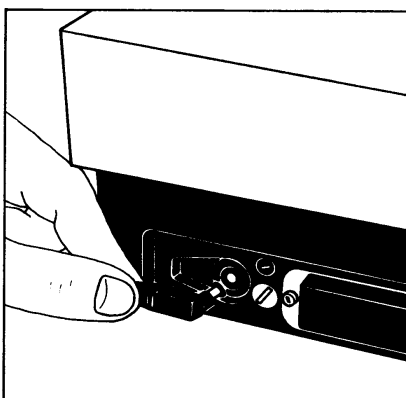


The scale is powered by an AC adapter. Make sure that voltage rating printed on this unit is identical to your local line voltage rating.

If the line voltage indicated or the plug design of the AC adapter does not match the rating or Standard you use, please contact your Sartorius dealer.

#### Important Note

Only use original Sartorius AC adapters identified by the Sartorius label. Use of AC adapters supplied by other manufacturers, even if these adapters have a registered approval rating from a national testing laboratory, requires the consent of a certified Sartorius technician.



Plug the cord of the AC adapter into the power receptacle of the scale. Now plug the AC adapter into a wall outlet.

### Voltage Selection

You can select the voltage only if you use our portable power supply (69 71172) that has a European-type plug (rounded prongs).



### Safety Precautions

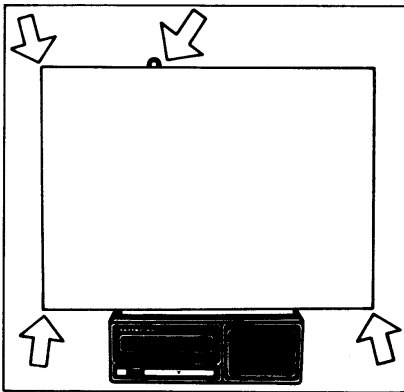
The power supply or AC adapter rated to Class 2 (double insulated) can be plugged into a wall outlet without taking any additional safety precautions.

The negative pole (ground) of the Output voltage (protective extra-low voltage) is connected to the scale housing, which can be grounded for Operation.

The optional interface (see "Interfacing Devices" on page 26 in addition) is also electrically connected to the scale housing (ground).

### Connecting Electronic Devices (Peripherals)

Unplug the AC adapter before you connect or disconnect devices to or from the interface ports.

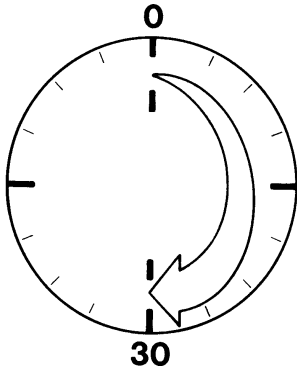


### Leveling the Scale using the Level Indicator (only for model IB 16000 S)

At the point of use, level the scale using the leveling feet **(4)** so that the air bubble is centered within the circle of the level indicator **(2)**.

## Operation

After you have plugged the scale into a wall outlet using the AC adapter, allow for at least 30 minutes' warmup.



The weight display shows the following special Status messages for your Information:

### BUSY

The scale processor is still busy processing a function and will not accept any other commands to perform functions at this time.

### STANDBY

The display has been turned off with the ON/OFF key **(8)** and the scale is now in the ready-to-operate mode so that it does not require warmup.

### POWER OFF

The scale was disconnected from line power (power failure or outage, reconnection to line power after scale was unplugged).

### CAL

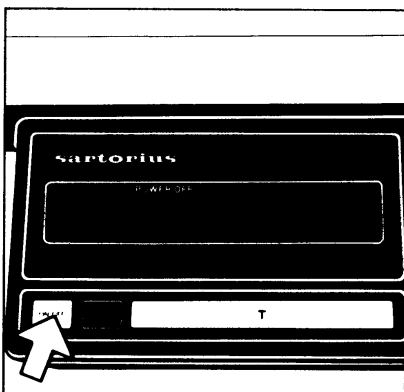
The calibration function has been activated.

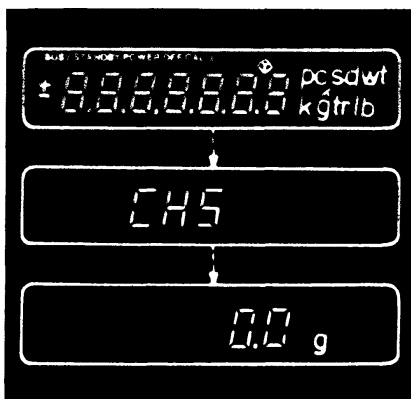
### Turning the Display On and Off

Press the ON/OFF key **(8)** to turn the display on or off.

You can also turn it on by pressing the tare control **(6)**.

When the scale is connected to the AC adapter and the power is on, the display will go out whenever you turn off the power using the ON/OFF key. All other electronic circuits will remain energized (indicated by STANDBY). This means the scale is immediately ready to operate without requiring warmup the next time you turn it on.





### Self-Test

After the scale is turned on, an automatic self-test of the scale's electronic circuitry is performed.

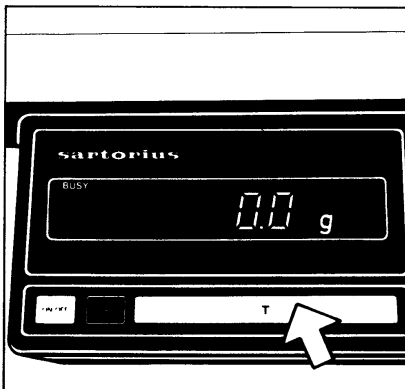
This self-test ends with the readout 0.0 g/0.000 kg (if the factory code setting 5 1 1/ 5 1 2 is used).

### Weighing

Now place your sample or object on the platform **(1)** to determine the weight. Read off the weight indicated in the display **(9)** as soon as the weight unit (in this case "g") appears as the stability symbol.

**In addition to grams/kilograms, this scale gives you a variety of other menu-definable international weight unit options.**

Select the weight unit you need from the table of the menu options for the scale operating program. Set the appropriate code as described in the section "Scale Operating Program."



### Taring

If you wish to weigh into a Container or if the weight display does not indicate 0.0 g/0.000 kg (or the equivalent with the weight unit of your choice), press the tare control to zero the display.

### Auto Zero

This scale has an automatic zero tracking function, known as "Auto Zero" (can be turned off by menu code - see "Scale Operating Program").

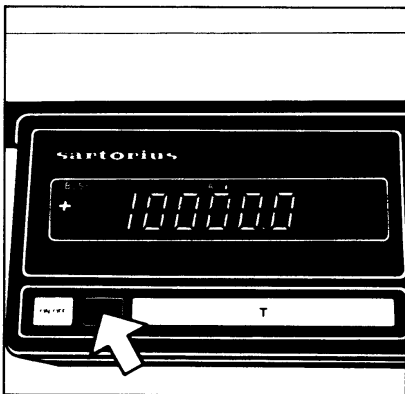
Changes off zero  $\leq 0.5$  of a digit per second are set to zero automatically.

## Automatic Shutoff

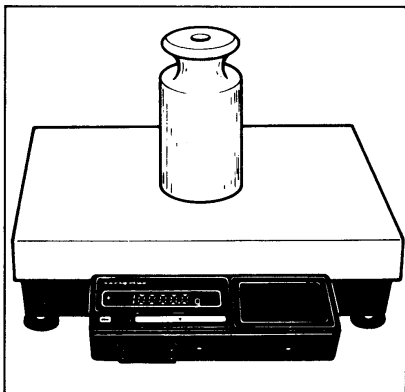
Make sure the "Automatic Shutoff" code is set to "ON" when using a non-rechargeable or rechargeable battery. This will increase the amount of time you can operate the scale before having to recharge the battery (see "Scale Operating Program"). If you do not press a key or if a weight readout in the display does not change for at least 2 minutes, "STANDBY" will start flashing in the display. The scale will shut itself off if it has not been operated after another 2 minutes.

## Calibration

- This is only possible with an accurate calibration weight (10 kg)
- See "Accessories" -



Unload the scale and press the CAL key **(7)** for at least 3 seconds until the calibration weight readout appears in the display.



Center the calibration weight on the platform. Now the weight unit symbol is displayed. An acoustic signal indicates the end of the calibration procedure.

You can block access to the calibration function -to find this menu code, refer to the "Scale Operating Program." This function is accessible when the scale operating program is unlocked using the menu access switch **(5)**.

## Scale Operating Program

The scale operating program lets you adapt your scale to various ambient conditions and to different weighing requirements, and select weight units commonly used in your country.

At the factory, we have set the codes for a Standard program which is protected by a locking function to prevent accidental changes.

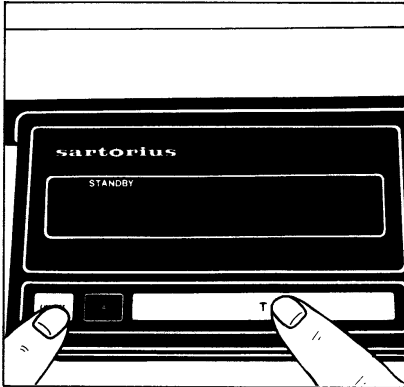
The "**menu code**" contains the information of the operating program. It consists of three digits, known in "computerese" as the page (1st digit), the line (2nd digit) and the word (3rd digit).

### Reading a Program Menu Code (List Mode)

How to access the menu of the scale operating program:

With the display turned off (**STANDBY** state), hold down the tare control (**6**) and briefly press the ON/OFF key (**8**). Upon completion of the automatic self-test, release the tare control as soon as "**CH5**" is displayed. The Status of the scale operating program is indicated in the weight display:

"**L**" Stands for the list mode. In this mode, you can read a menu code setting, but you cannot change it.

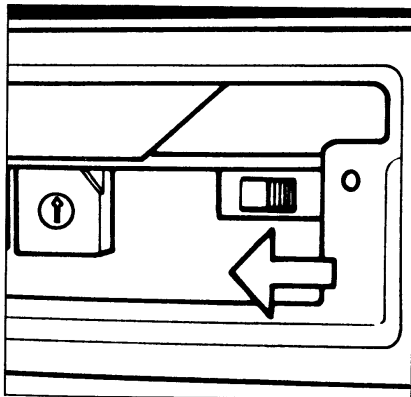


### Changing a Program Menu Code (Change Mode)

If you wish to change a program menu code, you must first unlock the menu access switch to access the program menu.

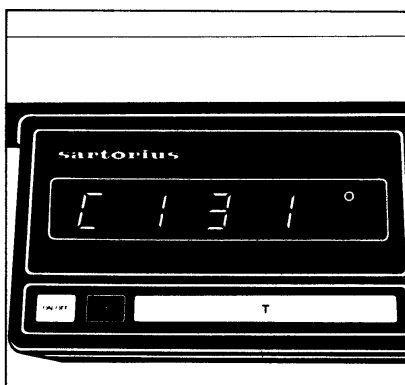
To do so, remove the protective cover located on the right of the display unit, and slide the menu access switch (**5**) in the direction of the arrow.

The display will indicate "**C**", which Stands for the change mode, meaning you can now change the menu code settings.



After you have accessed the menu of the scale operating program, the display will show a continuous numerical sequence from 0 to 5 for the "page" or the first digit of the code, in addition to the Status code letter "L" or "C".

When the first digit of the code you wish to check or change appears, press the tare control (6). The "page" code number now stops in the display, and a series of numbers for the 2nd digit or "line" will begin to cycle. Press the tare control again to stop the code number of your choice in the display. Next, the numbers for the "word" (last digit) will cycle in the display. Repeat the procedure to enter the last digit of the code.



The "o" symbol that appears indicates the actual setting.

To change any settings ("C" mode), press the tare control as soon as the appropriate numeric code is displayed.

Brief display of BUSY and the "o" symbol confirms your selection, followed by a return to "zero" for the 2nd digit or "line."

How to return to the weighing mode:

Press the tare control each time a 0 appears in the numerical sequence (word, line, page). If you have changed a menu code, it will be stored as soon as the display returns to the weighing mode.

Lock the scale operating program using the menu access switch ("L" readout) and replace the protective cover.

## List of the Programmable menu Code Settings

Page    Line    Word

### Menu of the Balance Operating Program (Active Parameters)

		Factory setting			Factory setting
<b>Code</b>	<b>Ambient Conditions</b>		<b>Code</b>	<b>Program Lock</b>	
	Very stable	■		OFF	
	Stable			ON	■
	Unstable				
	Very unstable				
<b>Code</b>	<b>Stability Range</b>		<b>Code</b>	<b>Acoustic Signal</b>	
	0,25 digit			ON	■
	0,5 digit			OFF	
	1 digit				
	2 digits	■	<b>Code</b>	<b>Weight Units<sup>1)</sup></b>	
	4 digits			Grams	g ■
	8 digits			Kilograms	kg
	16 digits			Carats	ct
	32 digits			Pounds	lb
	64 digits			Ounces	oz
<b>Code</b>	<b>Display Format</b>			Troy ounces	ozt
	Last decimal ON	■		Parts/pound	o
	Last decimal OFF			Hong Kong tael	tl
	Last decimal at stability			Singapore tael	tl
	All decimals at stability			Taiwan tael	tl
<b>Code</b>	<b>Tare parameter</b>			Grains	gr
	Without stability	■		Pennyweights	dwt
	At stability			Mommes	o
<b>Code</b>	<b>Auto Zero</b>			Milligrams	o
	ON	■		Austrian carats	o
	OFF			Call Program Line	
<b>Code</b>	<b>Calibration</b>			Call Program page	
	Accessible	■		<b>End of programming</b>	
	Accessible blocked				

Additional Parameters for the data Output format at the interface port and for calculation programs are available on request.-Please refer to the "Accessories."

<sup>1)</sup> You can choose any weight unit as long as it can be displayed in the particular weighing range you selected (for example do not set the code for "kg" when you are using a 0.1 mg balance).

## Troubleshooting Guide

Problem ...	Causes ...	Remedy
No segments are indicated in the weight display <b>(9)</b>	<ul style="list-style-type: none"> <li>- No line voltage available</li> <li>- The AC adapter is not plugged in</li> </ul>	<ul style="list-style-type: none"> <li>- Check power supply</li> <li>- Plug in the AC adapter</li> <li>-</li> </ul>
Weight display shows <b>“L”</b> or <b>“CH2”</b>	<ul style="list-style-type: none"> <li>- The platform cover <b>(1)</b> is not in place</li> <li>- An object is pressed against the platform cover or has gotten underneath it</li> </ul>	<ul style="list-style-type: none"> <li>- Place platform cover on the scale base</li> <li>- The platform cover must rest properly on the scale base without any interfering objects in between</li> </ul>
Weight display shows <b>“H”</b>	<ul style="list-style-type: none"> <li>- Load exceeds the capacity of the scale</li> </ul>	<ul style="list-style-type: none"> <li>- Unload the scale</li> </ul>
The weight readout changes constantly or the special message <b>“BUSY”</b> does not go out in the weight display	<ul style="list-style-type: none"> <li>- Unstable ambient conditions</li> <li>- Too much vibration or there is a draft</li> <li>- Sample does not have a stable weight</li> </ul>	<ul style="list-style-type: none"> <li>- Set up scale in another area</li> <li>- Access the menu to adapt scale to the particular type of weighing environment</li> </ul>
The weight display shows <b>“CE”</b>	<ul style="list-style-type: none"> <li>- A zero readout was not indicated in the weight display when the CAL key <b>(11)</b> was pressed to calibrate</li> <li>- The scale is loaded</li> </ul>	<ul style="list-style-type: none"> <li>- Press tare control <b>(9)</b> and re-press the CAL key</li> </ul>
The code <b>“CC”</b> in the display does not go out	<ul style="list-style-type: none"> <li>- The CAL key <b>(7)</b> has not been pressed when the display read zero</li> <li>- The scale is loaded</li> </ul>	<ul style="list-style-type: none"> <li>- Press the tare control <b>(6)</b> and re-press the CAL key</li> <li>- Unload the scale</li> </ul>
The weight readout is obviously wrong	<ul style="list-style-type: none"> <li>- Scale has not been calibrated</li> <li>- Scale has not been tared before weighing</li> <li>- The air bubble of the level indicator <b>(2)</b> is not within the circle(only for IB 16000 S)</li> </ul>	<ul style="list-style-type: none"> <li>- Calibrate scale</li> <li>- Tare before weighing</li> <li>- Level scale</li> </ul>
<b>“POWER OFF”</b> blinks in the display	<ul style="list-style-type: none"> <li>- The operating voltage is too low (battery discharged)</li> </ul>	<ul style="list-style-type: none"> <li>- Connect the scale or the external rechargeable battery to line voltage using the AC adapter</li> </ul>



## Care and Maintenance

### Cleaning

Please do not use any aggressive cleaning agents (solvents or similar agents). Instead, use a piece of cloth that has been wet with a mild detergent to clean the scale. Make sure that no liquid enters the scale housing. After cleaning, wipe down the scale with a soft, dry piece of cloth.

### Safety Inspection

If there is any indication that safe Operation of the scale with the AC adapter/power supply is no longer warranted, turn off the scale and disconnect the equipment from AC power immediately. Lock the equipment in a secure place to ensure that it cannot be used for the time being.

In this case, notify the Sartorius Service Center or International Technical Support Group based in Goettingen, Germany. Only service technicians who are authorized by Sartorius and have access to the required manuals are allowed to perform maintenance and repair work on the equipment.

Safe Operation of the scale with the AC adapter/power supply is no longer ensured when

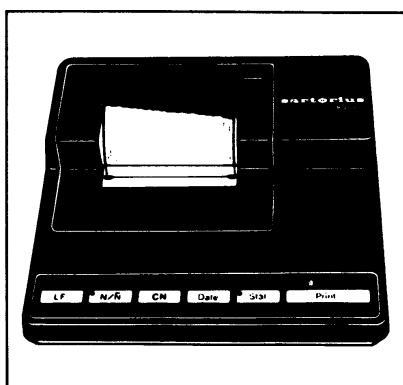
- there is visible damage to the AC adapter/power supply
- the AC adapter/power supply no longer functions properly
- the AC adapter/power supply has been stored for relatively long periods under unfavourable conditions
- the AC adapter/power supply has been exposed to rough handling during shipment

We recommend that the scale along with the AC adapter/power supply be inspected by a qualified Sartorius service technician according to the checklist given below.

- Leakage current  $<0.05$  mA measured by a properly calibrated multimeter
- Insulation resistance  $>7$  megohms measured with a constant voltage of at least 500 V at a 500kohmload.

The duration and number of measurements should be determined by a qualified Sartorius service technician according to the particular ambient conditions and operational conditions of the AC adapter. Such inspection should be done at least once a year.

## Accessories (Options)



Data printer with date/time and statistics functions	YDP 02-0D
Print speed approx. lines/sec.	1,5
Printer housing (W x D x H) in mm	150 x 138 x 43
in inches	5.5 x 5.4 x 1.7

Interface	YDO 01 IB
"Data Input" (incl. interface)	YDI 11 IB
Dedicated applications kit for the YDI 11 IB (incl. interface)	YAK 11 I-000&
Replace & with the letter code: C for parts counting F for formulation A for animal weighing U for the PLUS Performance Package	
Support arm (for raised display unit	YDH 01 IB
Rechargeable battery pack, external; approx. 10 hours of operation; can be recharged by the AC adapter (detailed information for powering the scale is available in our Service Information bulletin, no. 15/88)	YRB 02 Z
Adapter for hook-up to a 12-Volt battery	YCC 01-0007
Roller track conveyer plate	YRT 01 IB-0001
Remote display (can be connected to the interface port)	
— LCD, reflective	7371 01A
— for overhead projectors, transmissive	7371 02A
Calibration weight ( 1 x 10 kg)	7072 18
Dust cover	69 60I310

### Interfacing Devices with the Scale

Please note that the interface port is electrically connected to the protective grounding conductor of the scale housing. The cabling supplied as accessory components is shielded and electrically connected on both ends to the cases of the connectors. This electrical connection may result in interference caused by ground loops or by transient currents if you have grounded the housing or connected the protective grounding conductor for AC power. If necessary, connect an equipotential bonding conductor to the scale.

## Specifications

Model		IB 16000 S	IB 31000 P	IB 31
Capacity	kg	16,1	4/8/16/31	31
Readability	g	0,1	0,1/0,2/0,5/1	1
Maximum overload capacity	kg	75	75	75
Tare range (by subtraction)	kg	16,1	31	31
Standard deviation	g	≤±0,05	≤±0,1/0,1/0,25/1	≤±0,5
Max. linearity deviation	g	≤±0,2	≤±0,2/0,2/0,5/1	≤±1
Stabilization time (typical)	s	2		
Adaption to ambient conditions and application requirements		by selection of one of four digital filter levels		
Display update rate	s	0,1 – 0,8 (selectable)		
Stability range	d	0,25 ... 64 (selectable)		
Ambient temperature range		0 . °C.. +40 °C (32°F ... 104°F)		
Moisture-proof rating according to DIN 40040		Class F, non-condensing		
Dust and water protection rating in compliance with DIN 40050/IEC 529		IP 65 (scale) = NEMA 4 IP 20 (AC adapter)		
Sensitivity drift within +10 ... +30°C		≤±2,5·10 <sup>-6</sup>	≤±4·10 <sup>-6</sup>	≤±10·10 <sup>-6</sup>
Platform size	mm	417 x 307 (16.4 x 12.1 in.)		
Scale base (W x D x H)	mm	417 x 307 x 113 (16.4 x 12.1 x 4.4 in.) (without display unit)		
Net weight of the scale	kg	15 (33 lbs.)		
Net weight of the display unit	kg	1 2.2 lbs.)		
Power requirements (voltage + frequency: 50 – 60 Hz)		115 or 230 V depending on the AC adapter used		
Allowable voltage fluctuation		-20% ... +15%		
Power consumption	VA	9 (typical)		
Interface (optional)		RS 232 C/V24 – 28, RS 423/V10; 7-bit; parity: even, mark, odd, space; transmissions rate: 150 ... 9600 Baud		

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Sartorius AG reserves the right to make change to the technology, features, specification and design of the equipment without notice.

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The Sartorius logo consists of the word "sartorius" in a lowercase, sans-serif font. A vertical line passes through the center of the letter 'o', which is highlighted with a yellow circular background.